

What is claimed is:

Sub
A-7

1. An apparatus for recording a two-dimensional image on a recording sheet held on an outer circumferential surface of a drum rotated by a rotational drive source by scanning the recording sheet with a recording head in a main scanning direction perpendicular to an axis of said drum and moving said recording head with an auxiliary scanning direction moving means in an auxiliary scanning direction extending along the axis of said drum which is substantially perpendicular to said main scanning direction, wherein said recording head comprises means for recording an image on the recording sheet held on the outer circumferential surface of the drum in at least one of an accelerating period in which said rotational drive source accelerates said drum from a stop to a constant rotational speed and a decelerating period in which said rotational drive source decelerates said drum from said constant rotational speed to a stop, and in a constant-rotational-speed period in which said rotational drive source rotates said drum at said constant rotational speed.

2. An apparatus according to claim 1, further comprising:

recording position correcting means for correcting the position in which said recording head records the image on the recording sheet depending on the peripheral speed of

Sub
A. Cont

said drum in at least one of said accelerating period and
said decelerating period; and

recording output correcting means for correcting a
recording output from said recording head depending on the
peripheral speed of said drum.

3. An apparatus according to claim 2, wherein said
recording position correcting means comprises means for
changing the speed of said recording head moved by said
auxiliary scanning direction moving means.

4. An apparatus according to claim 2, wherein said
recording head comprises means for recording the image
depending on a main scanning write clock signal generated
depending on the rotational speed of said drum, and said
recording position correcting means comprises means for
changing the frequency of said main scanning write clock
signal.

5. An apparatus according to claim 2, wherein said
recording position correcting means comprises a PLL circuit
for detecting the rotational speed of said drum and
generating a main scanning write clock signal, and means for
changing the frequency of said main scanning write clock
signal by incorporating a variation corresponding to a
change in the rotational speed of said rotational drive
source into said PLL circuit.

1046078-031600
15
20910" 240940T
5 6. An apparatus according to claim 2, wherein said recording position correcting means comprises a PLL circuit for detecting the rotational speed of said drum and generating a main scanning write clock signal, and a delay circuit connected to an output terminal of said PLL circuit for delaying a predetermined delay depending on the rotational speed of said rotational drive source in said accelerating period or said decelerating period for generating a delayed main scanning write clock signal.

15 7. An apparatus according to claim 5, wherein said recording position correcting means comprises means for starting correcting the position in which said recording head records the image on the recording sheet when the rotational speed of said drum becomes equal to or higher than a predetermined speed in said accelerating period.

20 8. An apparatus according to claim 5, wherein said recording position correcting means is connected to a recorded-amount-of-image detecting means for detecting an amount of image to be recorded on said recording sheet, and comprises means for starting correcting the position in which said recording head records the image on the recording
25 sheet in said decelerating period when said recorded-amount-of-image detecting means detects that a remaining amount of image to be recorded reaches a predetermined amount.

9. An apparatus according to claims 1, wherein said apparatus records an image with a light beam outputted from said exposure head to said recording sheet as a light beam image recording apparatus.

10. An apparatus according to claims 1, wherein said apparatus records an image by applying an ink from an ink jet recording head to said recording sheet as an external-surface-scanning ink-jet image recording apparatus.

11. A method of recording an image with an image recording apparatus for recording a two-dimensional image on a recording sheet held on an outer circumferential surface of a drum rotated by a rotational drive source by scanning the recording sheet with a recording head in a main scanning direction perpendicular to an axis of said drum and moving said recording head with an auxiliary scanning direction moving means in an auxiliary scanning direction extending along the axis of said drum which is substantially perpendicular to said main scanning direction, said method comprising the step of:

recording an image on the recording sheet held on the outer circumferential surface of the drum with said recording head in at least one of an accelerating period in which said rotational drive source accelerates said drum from a stop to a constant rotational speed and a

decelerating period in which said rotational drive source decelerates said drum from said constant rotational speed to a stop.

5

12. A method according to claim 11, wherein said image recording apparatus comprises a light beam image recording apparatus for recording an image with a light beam outputted from said exposure head to said recording sheet.

13. A method according to claim 11, wherein said image recording apparatus comprises an external-surface-scanning ink-jet image recording apparatus for recording an image by applying an ink from an ink jet recording head to said recording sheet.

Add
A2